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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: Patent Application of John B. Davis et al.

Serial No. 08/373,953 filed January 17, 1995

Art Unit 3502

For: Rotational Control Apparatus

PWN&K File 1084

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

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GROUP 3500

The rotational control apparatus of the present invention is the subject of U.S. Patent Application No. 08/201,783 filed February 25, 1994 and 08/254,290 filed June 6, 1994 and of International Appln. No. PCT/US 95/02363 filed February 24, 1995. Attention is invited to the prior art cited in these copending patent applications, which is hereby listed in the enclosed PTO Form 1449. As copies of the prior art are available in the above U.S. application files of the United States Patent and Trademark Office, no further copies have been provided herewith.

The claims of the present application are believed to be directed to features and the synergistic combination of the present invention which are not shown, not taught, and deficient from the prior art. Specifically, the prior art does not show an eddy current drive in addition to an axially displaceable friction ring which engages with a friction disc, with the output portion of the clutch being driven by the friction disc and ring when engaged and being driven by the eddy current drive when the friction disc and ring are disengaged in a manner as the present invention. Furthermore, the friction ring being axially displaced by

fluid pressure introduced in the pressure cylinder defined by a piston for moving the piston and such that separate controls are not necessary for the eddy current drive is not shown, taught or disclosed by the prior art. Also, one of the drive components of the eddy current drive mounted to the input portion of the clutch while the other of the components is mounted directly on the friction interface member of the output portion for axial movement therewith in a first form or mounted on the housing rotatably related to the friction interface member of the output portion in an alternate form to reduce the number of clutch components and minimize the overall axial length is not suggested by the prior art. Further, a hub rotatable relative to a shaft and rotatably related to the shaft when the input is not rotatably related to the friction disc which is slideably mounted on and rotationally related to the hub is not taught or suggested by the prior art. Furthermore, air flow created between the first and second drive components of the rotational control apparatus by vanes mounted radially outward of the first and second drive components and in particular to the annular support which mounts the drive component to the input is not disclosed or suggested by the prior art. Also in this regard, the prior art does not show or suggest the output including openings located radially inward of the first and second drive components through which the air flow between the first and second drive components passes in a manner of the present invention. It is then Applicants' position that the information cited in no way anticipates or makes obvious the present invention disclosed and claimed in the present application.

It should be noted that the patents cited by applicants which are not in the English language were generally cited in other U.S. patents which were also cited or were cited by Examiner Bonck in the parent applications. In this regard, German Patent Nos. 3203143 and 3443523 and Japanese Patent No. 226721 were cited in U.S. Patent No. 4,926,992. A concise explanation of the relevance of German Patent No. 3203143 is set forth in the BACKGROUND of U.S. Patent No. 4,926,992 which is hereby incorporated herein by reference. Japanese Patent No. 226721 shows a dual electromagnetic clutch which selectively connects either one or another drive pulley to a driven shaft. Attention is also invited to the AMENDMENT received November 6, 1989 in U.S. application No. 07/275,771, which is hereby incorporated herein by reference.

Most of the remaining non-English references were cited in U.S. Patent No. 4,446,391. (Please note that our search associate was unable to locate USSR Patent 680113 and no other avenues were pursued to obtain a copy. This was the reason that this USSR Patent was not cited in the present application.) Attention is invited to the STATEMENT OF RELEVANCY received on March 22, 1982 in U.S. application No. 06/314,029, which is hereby incorporated herein by reference.

It should then be noted that since copies of the patents had been obtained, and the patents generally show rotatable magnetic elements, it was desired to make these patents of record as being considered pertinent to applicants' disclosure as showing the state of the prior art. It is then respectfully requested that all of the previously cited patents be considered and made of record in the above application.


It is therefore Applicants' position that the claims of the present application are allowable over the information cited by the Applicants, whether taken singly or in any combination.

Respectfully submitted,

John B. Davis et al.

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I hereby certify that this correspondence is being deposited with the United States Postal Service first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on the date indicated below.

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